

TGGAAAGGGCTAATTGGTCCAAAAAAGACAAGAGATCCTTGATCTGGATCTACCAACACAAAGGCTACTGCC
 CTGATTGGCAGAACTACACACCAGGGCAGGGATCAGATATCCACTGACCTTGGATGGTCTCAAGTTAGTAC
 CAGTTGAACCAGAGCAAGTAGAAGAGGCCAATAAGGAGAGAAGAACAGCTTGTACACCCATGAGCCAGCATG
 GGATGGAGGACCCGGAGGGAGAAGTATTAGTGTGAAGTTGACAGCCTCTAGCATTTCGTACATGGCCCGAG
 AGCTGCATCCGGAGTACTACAAAGACTGCTGACATCGAGCTTCTACAAGGGACTTCCGCTGGGACTTCCAG
 GGAGGTGTGGCTGGCGGGACTGGGAGTGGCGAGCCCTCAGATGCTACATATAAGCAGCTGCTTTGCCTGT
 ACTGGGTCTCTGGTTAGACCATCTGAGCTGGGAGCTCTGGCTAAGTGGAAACCCACTGCTTAAGCCT
 CAATAAAGCTTGCTTGAGTGTCAAAGTAGTGTGCCCCGTCTGGTGTGACTCTGGTAAGGAGATCCCTC
 AGACCCCTTTAGTCAGTGTGAAAATCTCTAGCAGTGGCGCCGAACAGGGACTTGAAGCGAAAGTAAAGCAG
 AGGAGATCTCGACGCAGGACTCGGCTTGTGAAGCGCGCACGGCAAGAGGCGAGGGCGGGACTGGTGAGTA
 CGCCAAAAATTGACTAGCGGAGGCTAGAAGGAGAGATGGTGGAGAGCCTAGTATTAAAGGGGGAGAAT
 TTAGATCGCGATGGAAAAATTGGTTAAGGCCAGGGGAAAGAAAAAAATATAAATTAAACATATAGTATGGG
 CAAGCAGGGAGCTAGAACGATTGCGAGTTAATCTGGCTTTAGAAACATCAGAAGGCTGTAGACAAATACTGG
 GACAGCTACAACCATCCCTCAGACAGGATCAGAAGAACTTAGATCATTATATAAATACAGTAGCAACCCCTCTATT
 GTGTGCATCAAAGGATAGAGATAAAAGACACCAAGGAAGCTTAAAGGAGATAGAGGAAGAGCAAAACAAAGTA
 AGACCCACCGCACAGCAAGCGCCGCTCTAGCCCGGGATCCGAATTGCGATGCGTCGACTCGAGGACTACAAG
 GATGACGATGACAAGGATTACAAGACGACGATGATAAGGACTATAAGGATGATGACGACAAATAATAGCAATT
 CTCGACGACTGCATAGGGTTACCCCCCTCTCCCTCCCCCCCCCTAACGTTACTGCCGAAGCCGTTGGAAATAA
 GGCGGTGTGCGTTGTCTATATGTTATTTCACCATATTGCCGTCTTGTGCAATGTGAGGGCCGGAAACCT
 GGCCCTGTCTTGTGACGAGATTCTCTAGGGCTTCTCGCCAAAGGAATGCAAGGTCTGTGAATGTC
 GTGAAGGAAGCAGTTCTCTGGAAAGCTTCTGTGAAAGACAAACACGCTGTAGCGACCCCTTGAGCGAGGGAAAC
 CCCCCACCTGGCGACAGGTGCCCTCTGGGCCAAAGCCACGTGTATAAGATAACCTGCAAAGGCGGCACAAC
 CAGTGCCACGTTGTGAGTTGGATAGTTGTGAAAGAGTCAAATGGCTCTCTCAAGCGTATTCAACAAGGGCTG
 AAGGATGCCAGAAGGTACCCATTGTATGGGATCTGATCTGGGCTCGGTGACATGCTTACATGTTAGTGTGTTAG
 TCGAGGTTAAAAAACGTCTAGGCCCCCGAACCACGGGACGGTGGTTTCTGAAAGGAAACACGATGATAATGGC
 CACAACCATGGTGAGCAAGCAGATCTGAAGAACACCGGCTGAGGAGATCATGAGCTTCAAGGTGAACCTGG
 GGGCGTGGTAACAACCAACGTTGACCATGGAGGGCTCGGCAGGGCAACATCTGTTGCCAACCGACTGGT
 GCAGATCCCGTGTGACCAAGGGCGCCCCCTGCCCTCGCCTTCGACATCCTGAGCCCGCTTCCAGTACGGCAA
 CGGCACCTTCACCAAGTACCCCGAGGACATCAGGCACTTCTCATCCAGAGCTTCCCGCCGGCTCGTGTACGA
 GCGCACCCCTGCGTACGAGGACGGCGGCCCTGGTGGAGATCCGAGCAGCATCACCTGAGGAGATGTTGT
 GTACCGCGTGGAGTACAAGGCCGCAACTTCCCCAACGACGGCCCCGTGATGAGAAGACCATCACGGCTGCA
 GCCCAGCTCGAGGTGGTGTACATGAACGACGGCGTGTGGGGCCAGGTGATCCTGGTGTACCGCTGAACAG
 CGGCAAGTTCTACAGCTGCCACATGCGCACCCCTGATGAAGAGCAAGGGCGTGGTGAAGGACTTCCCGAGTACCA
 CTTCATCCAGCACCCCTGGAGAACACCTACGTGGAGGACGGCGCTCGTGGAGCAGCACGAGACGCCATCGC
 CCAGCTGACCAGCCGGCAAGCCCTGGCAGCGTGCACGAGTGGGTGTAATAGGGTACCAAGGTAAGTGTACCC
 AATTGGCCGCTGATCTCAGACCTGGAGGAGGAGATATGAGGGACAATTGGAGAAGTGAATTATATAAATATAA
 AGTAGTAAAAATTGAACCATTAGGAGTAGCACCACCAAGGAAAGAGAAGAGTGGTGCAGAGAGAAAAAGAGC
 AGTGGGAATAGGAGCTTGTCTGGGTTCTGGGAGCAGCAGGAAGCACTATGGCGCAGCGTCAATGACGCT
 GACGGTACAGGCCAGACAATTATTGTCTGGTATAGTCAGCAGCAGAACAAATTGCTGAGGGCTATTGAGGC
 ACAGCATCTGTTGCAACTCACAGTCTGGGCATCAAGCAGCTCCAGGCAAGAACATCTGGTGTGGAAAGATA
 AAAGGATCAACAGCTCTGGGATTGGGTTGCTCTGGAAAACCTATTGCAACACTGCTGTGCTTGGAAATGC
 TAGTTGGAGTAATAAAATCTCTGGAACAGATTGGAAATCACACGACCTGGATGGAGTGGGACAGAGAAATTAA
 TTACACAAGCTTAACACTCTTAATTGAAGAACATGCCAAACAGCAAGAAAAGAACATGAACAAGAACATT
 ATTAGATAAATGGGCAAGTTGTGAAATTGGTTAACATAACAAATTGGCTGTGGTATATAAATTATTCTATAAT
 GATAGTAGGAGGCTGGTAGGTTAACAAAGTAGTTTGCTGTACTTTCTATAGTGAATAGAGTTAGGCAGGGATA
 TTCACCAATTGCTTCAGACCCACCTCCAAACCCCGAGGGGACCCGACAGGCCGAAGGAATAGAAGAACAGG
 TGGAGAGAGAGACAGAGACAGATCCATTGATTAGTGAACGGATCTGACGGTATCGTATGGGATTGGTGGCGA
 CGACTCCTGGAGCCCGTCAGTATCGCGGAATTCCAGCTGAGCCAGCAGCAGATGGGTGGGAGCAGTATCTGA
 GACCTAGAAAACATGGAGCAATCACAAGTAGCAATACAGCAGCTAACAAATGCTGCTTGTGCCCTGGCTAGAAGCA
 CAAGAGGAGGAAGAGGTGGGTTTCCAGTCACACCTCAGGTACCTTAAGCCAATGACTTACAAGGCAGCTGTA
 GATCTTAGCCACTTTAAAAGAAAAGGGGGACTGGAGGGCTAACATTCACTCCAAAGAACAGAACATCCTT
 GATCTGTGGATCTACACACACAAGGCTACTTCCCTGATTGGCAGAACTACACACCAGGGCCAGGGTCAGATAT
 CCACTGACCTTGGATGGTCTACAAGCTAGTACCAAGCTGAGCCAGATAAGGTAGAAGAGGCAATAAAGGAGAG
 AACACCACTGGTACACCCCTGTGAGCCTGATGAAATGGATGGATGACCCCTGAGAGAGAACAGTGTAGAGTGG
 GACAGCCGCTAGCATTTCATCACGTGGCCGAGAGCTGCATCCGGAGTACTTCAAGAACATGCTGACATCGAGCT
 TGCTACAAGGGACTTCCGCTGGGACTTCCAGGGAGGGCTGGCTGGCGGGACTGGGAGTGGCGAGCCCTC
 AGATGCTGCATATAAGCAGCTGCTTTGCTGTACTGGGTCTCTCTGGTTAGACCAGATCTGAGCCTGGGAGCT
 CTCTGGCTAACTAGGAAACCACTGCTTAAGCCTCAATAAAGCTTGCCTGAGTGTGCTCAAGTAGTGTG
 TCTGTTGTGACTCTGGTAACTAGAGATCCCTCAGACCCTTGTAGTCAGTGTGGAAAATCTCTAGCA

Fig. 1

TGGAAACGGCTAAGTTCGGTCCCAAAAAAGACAAGAGATCCTGATCTGTGGATCTACCACACACAAGGCTACTCCCTGAT
 TGGCAGAACTACACACCAGGGCCAGGGATCAGATATCCACTGACCTTGATGGTGTCTCAAGTTAGTACCAAGTGAACC
 AGAGCAAGTAGAAGAGGCCAATAAGGAGAGAAGAACAGCTTACACCCATGAGCCAGCATGGATGGAGGACCCGG
 AGGGAGAAGTATTAGTGTGGAAGTTGACAGCCTCTAGCATTTGTCACATGGCCCGAGAGCTGCATCCGGAGTACTAC
 AAAGACTGCTGACATCGAGCTTCTACAAGGGACTTCCGCTGGGACTTCCAGGGAGGTGTGCTCTGGCTAGACCAGATCTGA
 GGAGTGGGAGCCCTCAGATGCTACATATAAGCAGCTGCTTTGCTGTACTGGTCTCTGGTTAGACCAGATCTGA
 GCCTGGGAGCTCTGGCTAAGGGAAACCACTGCTTAAGCCTCAATAAGCTTGCTTGAGTGTCAAAGTAGTGTG
 TCCCCGCTGTTGACTCTGTAAGAGATCCCTCAGACCCCTTGTAGTCAGTGTGAAAATCTCTAGCAGTGGCG
 CCCGAACAGGGACTTGAAGGCAAAGTAAAGCCAGAGGAGATCTCTGACGCAGGACTCGGCTGTGAAGCGCGCACGG
 CAAGAGGCAGGGCGACTGGTGAATCGCAGGAAAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG
 AGCGTCACTATTAGCAGGGGAGAATTAGATCGCAGGGAAAAATTAGCGTTAAGGCCAGGGGAAAGAAAAATAAA
 ATTAAAACATATACTAGTATGGCAAGCAGGGAGCTAGAACGATTGCACTTAATCCTGGCTTTAGAAACATCAGAAGGCT
 GTAGACAAATACTGGGACAGCTACAACCATCCCTCAGACAGGATCAGAAGAAACTTAGATCATTATATAATACAGTAGCA
 ACCCTCTATTGTTGACATCAAAGGATAGAGATAAAAGACACCAAGGAAGCTTGTAGACAAGATAGAGGAAGAGCAAACAA
 AAGTAAGACCACCGCACAGCAGGGCCATCTCTATGGCAGGAAGAAGCGGAGACAGCAGAACAGCTCATCAGAA
 CAGTCAGACTCATCAAAGCTCTATCAAAGCAGTAAGTAGTACATGTAATGCAACCTATAATAGTAGCAATAGTAGCAT
 TAGTAGTAGCACCCGGGATCCGAATTGCACTGCTGACTCGAGGACTACAAGGATGACGATGACAAGGATTACAAA
 GACGACGATGATAAGGACTATAAGGATGATGACGACAATAATAGCAATTCTCGACGACTGCATAGGGTACCCCCCTC
 TCCCTCCCCCCCCCTAACGTTACTGGCGAAGCCGTTGGAATAAGGCCGTTGCGTTGTCTATGTTATTTC
 CCATATTGCCGTCTTGGCAATGAGGGCCGAAACCTGGCCCTGCTCTTGACGAGCATTCTAGGGTCTTCC
 CCTCTGCCAAAGGAATGCAAGGCTGTTGAATGCTGTAAGGAGCAGTCTCTGGAAGGCTCTGGAAGACAAACAA
 GTCTGTAGCAGCCCTTGCAGGGCAGGGAAACCCCCACCTGGCAGACAGGTCCTGCGGCCAAAGCCACGTGTATAAG
 ATACACCTGCAAAGGGCGCACACCCAGTGCACGTTGAGTTGGATAGTTGTGAAAGAGCTCAAATGGCTCTCCTCA
 AGCGTATTCAAACAGGGCTGAAGGATGCCAGAAGGTACCCCCATTGATGGGATCTGATCTGGGCTCGACATG
 CTTTACATGTGTTAGTCAGGTTAAAAAACGCTAGGCCCCGAAACCCCTGGGACGCTGGTTTCTGAAACAC
 ATGATAATGCCACAAACATGGTGAACGAGCAGATCTGAAAGAACACCCGGCTGCGGCAAGGGCAACATCCTG
 CCTGGGAGGCGTGGTGAACACACGTGTTGAGGAGATCATGAGCTCAAGGTGAA
 TGCAGATCCGCGTGAACAGGGCGCCCCCTGCCCTGCCCTGACATCTGAGCCCCGCTTCCAGTACGGCAACCGC
 ACCCTCACCAAGTACCCGAGGACATCAGCAGCTTCCATCCAGAGCTCCCGCCGGCTCGTGTACGAGCGCACCC
 GCGCTACGAGGACGGCGCTGGTGGAGATCCGAGCGACATCAACCTGATCAGGAGATGTTGTTGACCCGCTGGAGT
 ACAAGGGCCGCAACTCCCCAACGACGGCCCGTGTGAAGAAGACCATCACCGCCCTGAGCCAGCTTGGAGGTGGT
 TACATGAACGACGGCGTGTGGGGCCAGGTGATCTGGTGTACCCCTGAACAGCGGCAAGTCTACAGCTGCCACAT
 GCGCACCCGTATGAAGAGCAAGGGCGTGGTAAGGACTTCCCGAGTACCTCATCCAGCACCGCCTGGAGAACACT
 ACGTGGAGGACGGCGCTCGTGGAGCAGCACGAGACCGCCATGCCAGTGCACCGCCTGGCAAGCCCTGGCAGC
 CTGCACTGGGTGTAATAGGGTACCAAGTAAGTGTACCCAATTGGCCGCTGATCTCAGACCTGGAGGAGGAGATAT
 GAGGGACAATTGGAGAAGTGAATTATAAAAGTAGTAAAGGTTGAAACATTAGGAGTAGCACCACCAAGGCAA
 AGAGAAGAGTGGTGCAGAGAGAAAAAGAGCAGTGGGAATAGGAGCTTGTGTTGGGTTCTGGGAGCAGCAGGAAGC
 ACTATGGGCGCAGCGTCAATGACGCTGACGGTACAGGCCAGACAATTATGCTGGTATAGTGCAGCAGCAAAATT
 GCTGAGGGTATTGAGGCGCAACGATCTGTTGCAACTCACAGTCTGGGATCAAGCAGCTCAGGCAAGAACATT
 CTGTTGAAAGATACCTAAAGGATCAACAGCTCTGGGATTGGGTTGCTCTGGAAAACACTATTCACCAACTG
 CCTTGAATGCTAGTGGAGTAATAATCTGGAACAGATTGGAAATCACAGCTGGATGGAGTGGGACAGAGAAAT
 TAACAATTACACAAGCTTAATACACTCCTTAATTGAAGAATCGAAAACAGCAAGAAAAGAATGAACAAGAAATT
 AATTAGATAAAATGGCAAGTTGTGAAATTGGTTAACATAACAAATTGGCTGTGGTATATAAAATTATTCAATGATA
 GTAGGAGGCTGGTAGGTTAACGAAATAGTTTGCTGTACTTTCTATAGTAATAGGTTAGGCAGGGATATTCCATT
 ATCGTTCAGACCCACCTCCAAACCCGAGGGACCCGACAGGCCGAAGGAATAGAAGAACAGGTTGGAGAGAGACA
 GAGACAGATCCATTGATTAGTGAACGGATCTGACGGTATCGTATGGGATTGGTGGCAGCAGCTCTGGAGCCGTC
 GTATCGGCGGAATTCCAGCTGAGGCCAGCAGATGGGTGGAGCAGTATCTGAGACCTAGAAAACATGGAGCAATC
 ACAAGTAGCAATACAGCAGCTAACATGCTGCTGCTGGCTAGAACAGCACAAAGAGGAGGAAGAGGTTGGTT
 CACACCTCAGGTACCTTAAGACCAATGACTTACAAGGCAGCTGTAGATCTAGCCACTTTTAAAGAAAAGGGGAC
 TGGAAAGGCTAATTCACTCCAAAGAACAGAACAGATATCCTGATCTGTGGATCTACACACACAAGGCTACTTCC
 TGGCAGAACTACACACCAGGGCCAGGGTCAAGATATCCACTGACCTTGGATGGTGTACAAGCTAGTACCAAGT
 AGATAAGGTAGAAGAGGCCAATAAAGGAGAGAACACCCAGCTTGTACACCCCTGAGGCTGCATGGAAATGGAT
 AGAGAGAAGTGGTAGAGTGGAGGTTGACAGCCGCTAGCATTCTCATCACGGCCAGAGCTGCATCCGGAGTACT
 AAGAACTGCTGACATCGAGCTGCTACAAGGGACTTCCGCTGGGACTTCCAGGGAGGCGTGGCCTGGGAGCTGG
 GGAGTGGCGAGCCCTCAGATGCTGCATATAAGCAGCTGCTTTGCTGTACTGGGTCTCTGGTTAGACCAGATCTGA
 GCCTGGGAGCTCTGGCTAAGGGAAACCACTGCTTAAGCCTCAATAAGCTTGCTTGAGTGTCTCAAGTAGTGTG
 TGCCCGTCTGTTGACTCTGGTAACTAGAGATCCCTCAGACCCCTTGTAGTCAGTGTGAAAATCTCTAGCA

Fig. 2

TGGAAAGGGCTAATTGGTCCAAAAAGACAAGAGATCCTGATCTGGATCTACCACACAAAGGTACTTCC
 CTGATTGGCAGAACTACACACCAGGGCCAGGGATCAGATATCCACTGACCTTGGATGGTCTCAAGTTAGTAC
 CAGTTGAACCAGAGCAAGTAGAAGAGGCCAATAAGGAGAGAAGAACAGCTGTTACACCCATGAGCCAGCATG
 GGATGGAGGACCCGGAGGGAGAAGTATTAGTGTGGAAGTTGACAGCCTCTAGCATTGTCACATGCCAG
 AGCTGCATCCGGAGTACTACAAAGACTGCTGACATCGAGCTTCTACAAGGGACTTCCGCTGGGACTTCCAG
 GGAGGTGTGGCTGGCGGACTGGGAGTGGCAGGCCCTAGATGCTACATATAAGCAGCTGCTTTGCTGT
 ACTGGTCTCTGGTTAGACCAGATCTGAGCCTGGAGCTCTGGCTAAGGGAAACCACTGCTTAAGCCT
 CAATAAAGCTTGCTTGTGCTAAAGTAGTGTGCCCCGTGTTGTGACTCTGGTAAGGAGATCCCTC
 AGACCCCTTGTAGTCAGTGTGAAAATCTCTAGCAGTGGCGCCGAACAGGGACTTGAAGGCAAAGTAAAGCCAG
 AGGAGATCTCTGACGCAGGAATCGGCTTGCTGAAGCGCGCACGGCAAGAGGCGAGGGCGGGACTGGTGTAGTA
 CGCCAAAAATTGACTAGCGGAGGCTAGAAGGAGAGATGGGTGCGAGAGCCTAGTATTAGCGGGGAGAA
 TTAGATCGCAGGGAAAAATTGGTTAGGCCAGGGGGAAAGAAAAAATATAAATTAAACATATAGTATGGG
 CAAGCAGGGAGCTAGAACGATTGCAAGTTAATCTGGCTTGTAGAAACATCAGAAGGCTGTAGACAAATACTGG
 GACAGCTACAACCATCCCTCAGACAGGATCAGAAGAACTTAGATCATTATATAACAGTAGCAACCTCTATT
 GTGTGCATCAAAGGATAGAGATAAAAGACACCAAGGAAGCTTAGACAAGATAGAGGAAGAGCAAAACAAAAGTA
 AGACCACCGCACAGCAAGCGGCCATCTCCTATGGCAGGAAGAGCAGCGACGAAGAGCTCATCAGAA
 CAGTCAGACTCATCAAGCTCTATCAAAGCAGTAAGTAGTACATGTAATGCAACCTATAATAGTAGCAATAGT
 AGCATTAGTAGTAGCACCCGGCGATCCGCCGCCATGAAAGTGTCCGCAATTCCGCAAAAGAAGAGGA
 AGGTAGAAGACCCAAGGACTTCCAGAATTGCTAAGTTTTGAGTCCAAGCTTGGCACTGGCGTGT
 TACAACGCTGTGACTGGAAAACCCCTGGCGTTACCAACTTAATGCCCTGCAAGCACATCCCCCTTGGCGACT
 GGCGTAATAGCGAAGAGGCCCGACCAGTCCGCTTCCAAACAGTTGCGCAGCCTGAATGGGAATGGCGTT
 CCTGGTTCCGGCACCGAGCGGTGCCGAAAGCTGGCTGGAGTGCATCTCTGAGGGCGACTGTGCG
 TCCCCTCAAACGGCAGATGCACTGGTACGATGCCCATCTACACCAACGTAACCTATCCCATTACGGTCATC
 CGCGTTTGTCCACGGAGATCCGACGGTTGTTACTCGCTCACATTAAATGTTGATGAAAGCTGGCTACAGG
 AAGGCCAGACCGAATTATTGGTGTGCGTTACCGCGTTTGTGAGGCGTAAACCGTCACGAGCATCATC
 ACGGCCAGGACAGTCGTTGCCGTCTGAATTGACCTGAGCGCATTTCACGCGCCGAGAAACCGCCTCGCG
 TGATGGTGTGCGTTGGAGTGCAGGACTATCTGAAGATCAGGATATGTGGCGATGAGCGGCAATTCCGT
 ACGTCTCGTTGCTGCATAAAACCGACTACACAAATCAGCATTCCATGTTGCCACTCGCTTAATGATGATTCA
 GCCGCGCTGACTGGAGGCTGAAGTTGAGATGTGCGGCGAGTTGCGTGAACCTACGGTAACAGTTCTTAT
 GGCAGGGTGAAACGCAAGGTGCCAGCGCACCGCCCTTCGGCGGTGAAATTATGATGAGCGTGGTGTATG
 CCGATCGCGTACACTACGCTGAAACGTCGAAACCCGAAACTGTGGAGCGCCAAATCCGAATCTCTATCGT
 CGGTGGTTGAACTGCACACCGCCAGCGCACGCTGATTGAGCAGAACGCTGCGATGTCGGTTCCGCGAGGTGC
 GGATTGAAATGGTCTGCTGCTGAACGGCAAGCCGTTGCTGATTGAGGCGTTAACCGTCACGAGCATCATC
 CTCTGCAATGGTCAGGTGATGAGCAGACGATGGTGCAGGATATCTGCTGATGAAGCAGAACACTTAACG
 CCGTGCCTGTCGATTACCGAACCATCCGCTGGTACACGCTGCGACCCTGATGTGGTGG
 ATGAAGCCAATATTGAAACCCACGGCATGGTGCCTGAAATGATGCTGACCGATGATCCGCGCTGGTACCGCGA
 TGAGCGAACCGCTAACCGCAATGGTGCAGCGCAGTGTAAATACCCGAGTGTGATCATCTGGCGCTGGGAATG
 AATCAGGCCACGGCGCTAACGACCGCTGATGCTGGATCAAATCTGCTGATCCTCCGCCGGTGCAGT
 ATGAAGCGGGAGCGAACACCACGGCACCAGTATTATTGCCCAGTGTACCGCGCTGGATGAAGACCGC
 CCTTCCCGCTGCGGAATGGCTCATCAAAATGGCTTGCCTACCTGGAGAGACCGCCGCTGATCCCTT
 CGCAATACGCCACCGCATGGTAACAGTCTGGCGTTGCTAAATACTGGCAGGCGTTGCTGAGTATCCCC
 GTTACAGGGCGCTGCTGGACTGGGATCAGTCGCTGATTAATATGATGAAACCGCAACCCGTGGT
 CGGCTTACGGCGGTGATTGGCGATACGCCAACGATGCCAGTTGCTATGAACGGTCTGGTCTTGGCGACC
 GCACGCCGATCCAGCGTACGGAAGCAGAACACCCAGCAGCAGCTTCCAGTTCGTTATCCGGCAAACCA
 TCGAAGTGACCAGCGAACACTGCTGGCTCATAGCGATAACCGAGCTCTGCACTGGATGGTGGCGCTGGATGGTA
 AGCCGCTGGCAAGCGGTGAAGTGCCTCTGGATGTCGCTCCACAAGGTAACAGTTGATTGAACTGCCTGAACTAC
 CGCAGCCGGAGAGCGCCGGCAACTCTGGCTCACAGTACCGTAGTGCACCGAACCGACCGCATGGTCAGAAG
 CGGGCACATCAGGCCCTGGCAGCAGTGGCGCTGGCGAAAACCTCAGTGTGACGCTCCCCGCCGCTCCACG
 CCATCCCGCATCTGACCAACCGCAATGGATTGGTGCATCGAGCTGGTAATAAGCGTTGGCAATTAAACCGCC
 AGTCAGGCTTCTTACAGATGGATTGGCGATAAAAACAACTGCTGACGCCCTGCGCAGTCACTTACCC
 GTGCACCGCTGGATAACGACATTGGCGTAAGTGAAGCGACCCGATTGACCTAAGCCTGGTGAACGCTGG
 AGGCCGGGGCATTACCGCCGAAGCAGCGTGTGAGTGCACGGCAGATACTTGTGATGCGGTGCTGA
 TTACGACCGCTACCGCGTGGCAGCATCAGGGAAAACCTTATTATCAGCCGAAAACCTACCGGATTGATGGTA

Fig. 3A

GTGGTCAAATGGCGATTACCGTTGATGTTGAAGTGGCGAGCGATACACCGCATCCGGCGCGATTGGCTGAACT
 GCCAGCTGGCGCAGGTAGCAGACGGGTAACCTGGCTCGGATTAGGGCGAAGAAAACATATCCCACCGCTTA
 CTGCCCCCTGTTGACCGCTGGGATCTGCCATTGTCAGACATGTATACCCGTACGTCTTCCGAGCGAAAACG
 GTCTGCCTGGGGACGCCAATTGAATTATGCCACACCAGTGGCGGGGACTTCCAGTTCAACATCAGCC
 GCTACAGTCAACACCAACTGATGGAAACCAGCCATGCCATCTGCTCACGCCAAGAAGGCACATGGCTGAATA
 TCGACGGTTCCATATGGGATTGGTGGCACGACTCCCTGGAGGCCGTCAGTATGCCGAATTCCAGCTGAGCG
 CCGGTCGCTACCACTTACAGGTTGGCTGGTCAAAAATAATAAAACCGGGCAGGGTCGACTCGAGGACTACAA
 GGATGACGATGACAAGGATTACAAAGACGACGATGATAAGGACTATAAGGATGATGACGACAAATAATAGCAATT
 CCTCGACGACTGCATAGGGTACCCCCCTCTCCCTCCCCCCCCCTAACGTTACTGCCGAAGCGCTTGAATA
 AGGCCGGTGTGCGTTGTCTATATGTTATTTCCACCATATTGCCCTTTGGCAATGTGAGGGCCGGAAAC
 TGGCCCTGCTTCTGACGAGCATTCTAGGGCTTCCCTGCCAAAGGAATGCAAGGTCTGTTGAATGT
 CGTGAAGGAAGCAGTCCCTGGAAGCTTCTGAAAGACAAACACGCTGTAGGCCACCTTGCAGGCAGCGAA
 CCCCCCACCTGGCGACAGGTGCCTCTGCCAAGGCCACGTGTATAAGATACACCTGCAAAGGCCACACC
 CCAGTGCACGTTGTGAGTTGGATAGTTGTGAAAGAGTCAAATGGCTCTCAAGCGTATTCAACAAGGGCT
 GAAGGATGCCAGAAGTACCCATTGTATGGGATCTGATCTGGGCTCGGTGCACATGCTTACATGTGTTA
 GTCGAGGTTAAAAAACGTCTAGGCCCCCGAACACGGGGACGTGGTTTCTTGAAGGAAACACGATGATAATGG
 CCACAACCATGGTGAGCAAGCAGATCTGAAAGAACACCGGCCTGCAGGAGATCATGAGCTCAAGGTGAACCTGG
 AGGGCGTGGTGAACAACCACGTGTTACCATGGAGGGCTGCCAACGGCAACATCCCTGTCGGCAACAGCTGG
 TGCAGATCCCGTGCACCAAGGGCGCCCCCTGCCCTCGCCCTGACATCCTGAGCCCCGCCCTCAGTACGGCA
 ACCGCACCTTCACCAAGTACCCGAGGACATCAGCAGTCTTCATCCAGAGCTTCCCGCCGGCTTCTGTACG
 AGCGCACCTCGCTACGAGGACGGCGCTGGTGGAGATCCGAGCAGCATCAACCTGATCGAGGAGATGTTG
 TGTACCGCGTGGAGTACAAGGGCGCAACTCCCCAACGACGGCCCCGTGATGAAAGAAGACATCACCCGCTGC
 AGCCCAGCTCGAGGTGGTGTACATGAAACGACGGCGTCTGGTGGGCCAGGTGATCCTGGTACCGCTGAACA
 GCGGCAAGTTCTACAGCTGCCACATGCGCACCTGATGAAAGAGCAAGGGCGTGGTAAGGACTTCCCGAGTACC
 ACTTCATCCAGCACCGCCTGGAGAACACTACGTTGGAGGACGGCGCTTGTGGAGCAGCACGAGACGCCATCG
 CCCAGCTGACCAGCCTGGCAAGCCCTGGCAGCTGCACGAGTGGGTGTAATAGGGTACCAAGGTAAGTGTACC
 CAATTCCGGCGTGTACCTCAGACCTGGAGGAGATATGAGGGACAATTGGAGAAGTGAATTATATAAATATA
 AAGTAGAAAAATTGAACCAATTAGGAGTAGCACCCACCAAGGAAAGAGAAGAGTGGTGCAGAGAGAAAAAGAG
 CAGTGGGAATAGGAGCTTGTCTGGTTCTGGGAGCAGCAGGAAGACTATGGCGCAGCGTCAATGACGC
 TGACGGTACAGGCCAGACAATTATTGTCCTGGTATAGTCAGCAGCAGAACATTGCTGAGGGTATTGAGGCGC
 AACAGCATCTGTCACACTCACAGTCTGGGCATCAAGCAGCTCCAGGCAAGAATCTGGTGTGGAAAGATACC
 TAAAGGATCAACAGCTCTGGGATTGGGTTGCTCTGGAAAACATCTTGCACCACTGCTGTGCCTTGGATG
 CTAGTTGGAGTAATAATCTGGAACAGATTGGAATCACACGACCTGGATGGAGTGGGACAGAGAAATTAAACA
 ATTACACAAGCTTAATACACTCCTTAATTGAGAACATCGCAAACACCAGCAAGAAAAGAATGAAACAAGAATTATTGG
 AATTAGATAAAATGGCAAGTTGTGGAATTGGTTAACATAACAAATTGGCTGTGGTATATAAATTATTCTAA
 TGATAGTAGGAGGCTGGTAGGTTAACAGAATAGTTTGCTGTACTTCTATAGTGAATAGAGTTAGGCAGGGAT
 ATTCAACATTATGTTGACGCCACCTCCCAACCCGAGGGGACCCGACAGGCCGAAGGAATAGAAGAAG
 GTGGAGAGAGAGACAGAGACAGATCCATTGATTAGTGAACGGATCTGACGGTATCGTATGGGATTGGTGGCG
 ACGACTCTGGAGGCCGTAGTATGGCGGAATTCCAGCTGAGCCAGCAGCAGATGGGTGGGAGCAGTATCTCG
 AGACCTAGAAAACATGGAGCAATCACAGTCAAGTAGCAATAACAGCAGCTAACATGCTCTGTGCCTGGCTAGAAGC
 ACAAGAGGAGGAAGAGGTGGTTTCCAGTCACACCTCAGGTACCTTAAGACCAATGACTTACAAGGCAGCTGT
 AGATCTTAGCCACTTTAAAAGAAAAGGGGGACTGGAGGGCTAACACTCCAAAGAACAGAACATCCT
 TGATCTGTGGATCTACACACACAAGGCTACTTCCCTGATTGGCAGAACTACACACCAGGGCCAGGGTCAGATA
 TCCACTGACCTTGGATGGCTACAAAGCTAGTACCGAGTGGAGCCAGATAAGGTAGAAGAGGCCAATAAAGGAGA
 GAACACCGCTTGGTACACCCCTGTGAGGCCGTGATGGAATGGATGACCTGAGAGAGAAGTGTAGAGTGGAGGTT
 TGACAGCCGCTAGCATTGACACGAGCTGAGGAGCTGACATCCGGAGTACTTCAAGAACACTGCTGACATCGAGC
 TTGCTACAAGGGACTTCCGCTGGGACTTCCAGGGAGGGCTGGCCTGGCGGGACTGGGAGTGGCAGGCC
 CAGATGCTGCATATAAGCAGCTGCTTTTGCTGTACTGGGTCTCTGGTAGACCAAGATCTGAGCCTGGAGC
 TCTCTGGCTAATAGGAAACCACTGCTTAAGCCTAACAAAGCTGCTTCAAGTGTGAGTGTGCTTCAAGTAGTGTGCCC
 GTCTGTGTGACTCTGGTAACTAGAGATCCCTCAGACCCCTTTAGTCAGTGTGAAAATCTCTAGCA

Fig. 3B

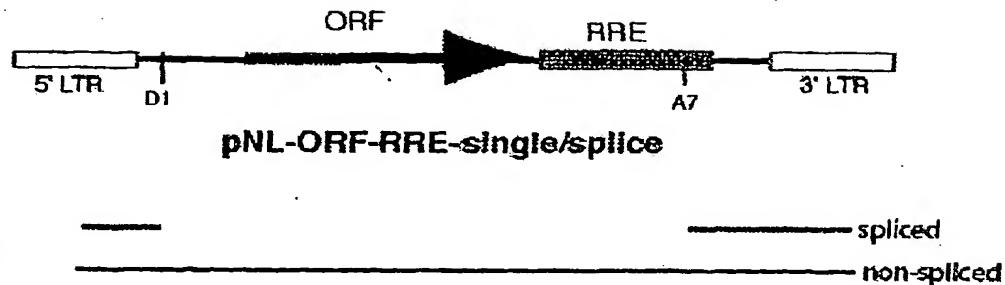


Fig. 4

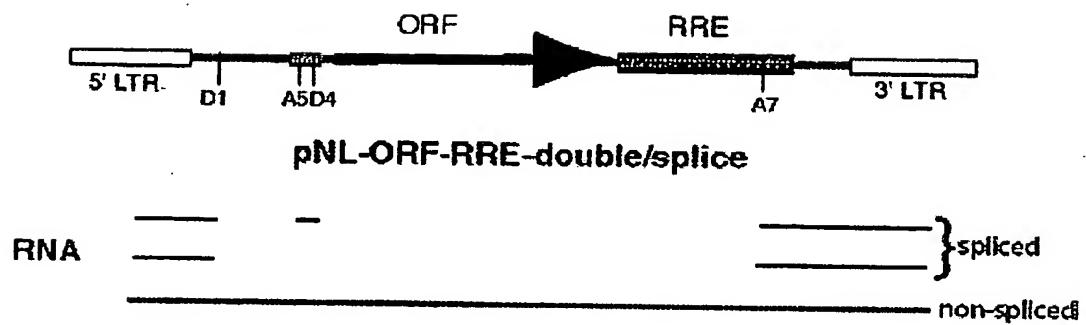


Fig. 5

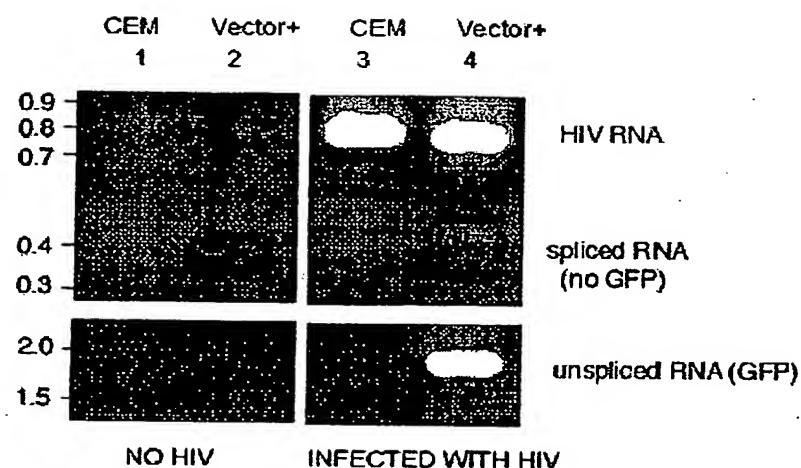


Fig. 6

BEST AVAILABLE COPY



CEM containing vector;
no HIV

CEM containing vector;
plus HIV

Fig. 7

BEST AVAILABLE COPY

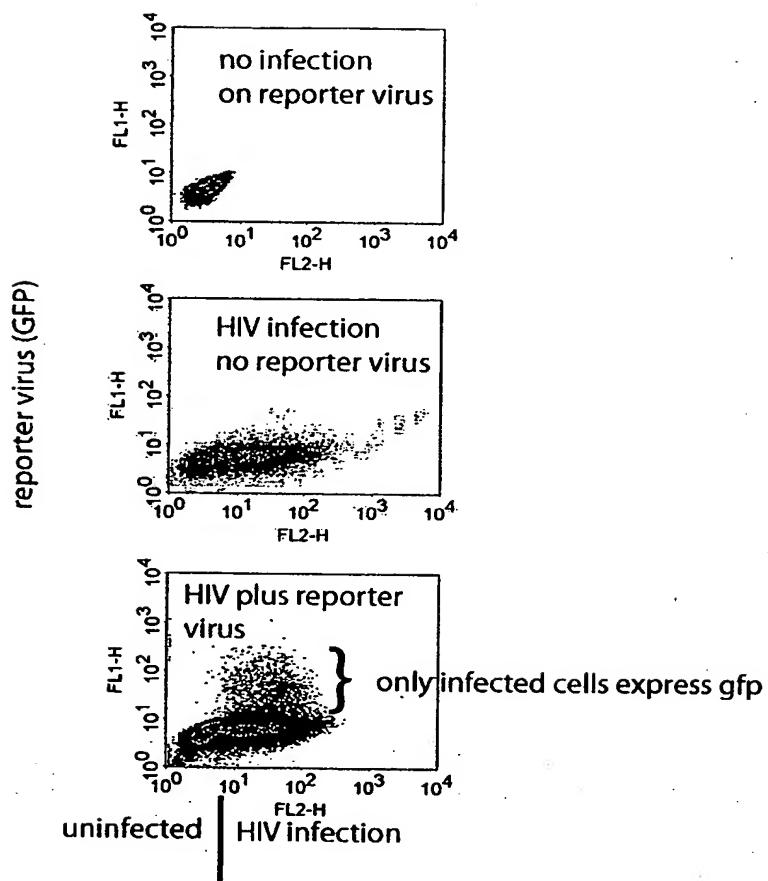


Fig. 8